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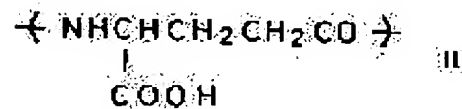
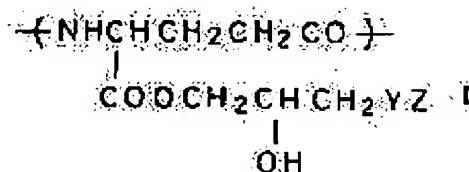
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(54) POLY-GAMMA-GLUTAMIC ACID ESTER AND ITS PRODUCTION

(57)Abstract:

PURPOSE: To obtain a poly- γ -glutamic acid ester having high solubility to general-purpose organic solvents and useful as a film-forming material, etc., by reacting a poly- γ -glutamic acid with a monoepoxide compound having epoxy ring on the chain terminal.

CONSTITUTION: A poly- γ -glutamic acid produced preferably by fermentation process is dissolved or dispersed in a solvent (e.g. dimethylformamide). The obtained solution or dispersion is incorporated with a monoepoxide compound having epoxy ring on the chain terminal (e.g. glycidyl benzoate and phenyl glycidyl ether) and the mixture is heated at $\geq 70^{\circ}\text{C}$ (preferably $\geq 90^{\circ}\text{C}$) to effect the reaction of the components and obtain the objective easily handleable poly- γ -glutamic acid ester composed of the recurring unit of formula I and the recurring unit of formula II, containing the recurring unit of formula I in an amount of $\geq 25\text{mol}\%$, preferably $\geq 30\text{mol}\%$, more preferably $\geq 50\text{mol}\%$ and having a number-average molecular weight of 500-100,000, preferably 500-10,000, more preferably 500-2,000.



LEGAL STATUS

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